



Hospital-based interventions to contain antibiotic resistance in  
low-resource settings (AIM) course

2019-2020

**STUDENT HANDBOOK**

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**Short Course:**  
**“Hospital-based interventions to contain antimicrobial  
resistance in low-resource settings”  
(AIM)**



Welcome to the course “Hospital-based interventions to contain antimicrobial resistance in low-resource settings”, in short, the “AIM Course”. This guide provides some essential information about the course and your stay at the ITM in Antwerp.

We wish you a wonderful and enriching time at our Institute!

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## 1. Introduction

Antibiotic resistance (ABR) is a fast-growing problem worldwide, considered as a major threat to public health by the World Health Organization and disproportionately hitting low-resource settings (LRS). Antibiotic resistance is quickly becoming an important public health problem in these contexts because of the high burden of resistant pathogens, the scarce options for diagnosis and therapy, the lack of technical and managerial competences or the lack of adapted guidelines and trainings.

The short course “Hospital-based Interventions to Contain Antibiotic Resistance in Low-resource Settings (AIM)” is a 3-week course which offers an interdisciplinary and interactive training on relevant aspects of antibiotic resistance and its containment at the hospital level. The course focuses on hospitals because they concentrate the most ill and vulnerable patients; in addition, they are hotbeds of healthcare-acquired infections, act as referral sites for difficult-to-treat infections and host trainees and postgraduate educational programs. It consists of a common learning track and 3 specific learning tracks on Antibiotic Stewardship (ABS), Infection Prevention & Control (IPC) and Microbiological Surveillance (MS) in the hospital setting. These are closely linked key components in the successful containment of antibiotic resistance.

Healthcare professionals from LRS already involved in ABR-containment are invited to apply. Candidates are encouraged to state and motivate their preference of one of the three course learning tracks (ABS, IPC or MS).

The course is organized face-to-face at the ITM and taught exclusively in English.

## 2. Course content

The course focuses on the three main components of ABR-containment in a low-resource hospital setting as well as on their interactions: Antibiotic Stewardship, Infection Prevention & Control and Microbiological Surveillance. It consists of:

### **A common track addressing topics in common to the three themes:**

- Key aspects of pathogens and antibiotics
- Key aspects in IPC, including hand hygiene, cleaning and disinfection of environment and equipment
- Interventions to contain ABR including Hospital Committee
- Antiseptics/disinfectants
- Transmission based precautions
- Surveillance on health-care associated infections and outbreak investigation
- Practical sessions on blood sampling, hand hygiene and preparation of hand rub
- Blood & other cultures: indications, sampling and transport
- How to turn laboratory data into report
- How to communicate individual laboratory results
- Introduction to GLASS and the National Action Plan to contain ABR
- The One Health perspective on ABR

### **Specific modules on themes of relevance for each of the three disciplines:**

Antibiotic Stewardship track:

- (Ir)rational use of antibiotics
- Gathering/understanding antibiotic use data (DDD, PPS)
- From antibiotic susceptibility testing to surveillance report
- Translation ABR data into guideline
- Prescriber and patient perspective
- Clinical casestudies
- Surgical site infections

Infection Prevention & Control track:

- Framework Hospital IPC
- Cleaning / disinfection of the environment and equipment
- Transmission based precautions
- Hand hygiene
- Microbiological sampling and processing of the hospital environment
- Invasive devices and care bundles
- Surgical site infections
- Monitoring IPC

Microbiological Surveillance track:

- Working-up cultures in the laboratory
- Selection of appropriate clinical specimens and samples for analysis
- Reading and interpreting antimicrobial susceptibility testing results
- Use of EUCAST/CLSI guidelines
- Translation ABR data into a guideline
- Aggregate laboratory data into a surveillance report.
- Microbiological sampling and processing of the hospital environment

## **2.1 Teaching and Learning methods**

The course offers a mixture of lectures, hands-on sessions (including benchwork, practical exercises and a carousel), case discussions, data analysis and role plays.

The role-plays, exercises and group work (organized as a Hospital Committee with participants from the different tracks) allow for maximal interdisciplinary interaction, mirror real-life in the hospital, offer the opportunity to exchange ideas and skills and allow to build-up the synergism required for successful action.

During the course each participant will develop and defend a personal project considering of a plan to contain Antibiotic Resistance in his/her facility in front of an expert committee, related to the learning track of the participant (ABS, IPC or MS).

The objectives of the personal project are the following:

- Define the main problems and challenges in ABR containment in your hospital;
- List ideas and activities for ABR containment in your hospital;
- Develop a personal intervention plan, clarifying how these activities will be implemented;
- Implement a limited set of activities in your hospital after the course.

## **2.2 Learning objectives**

### General learning objectives

After successful completion of the course, participants will be able to develop and implement actions in the containment of ABS in his or her home facility. In addition, specific learning objectives for each track are defined.

### Learning objectives 'Antibiotic stewardship' track

- Implement principles of rational use of antibiotics at patient and hospital level.
- Collect/interpret quantitative/qualitative data on antibiotic use and antibiotic susceptibility results.
- Translate ABR-data into antibiotic treatment guidelines and a local antibiotic policy.
- Implement and evaluate an antibiotic policy at hospital level.

### Learning objectives 'Infection prevention and control' track

- Develop a strategy to improve hand hygiene, cleaning / disinfection of the environment and equipment.
- Implement and teach principles of transmission-based precautions.
- Propose possible solutions regarding organizational aspects and core components of IPC.
- Outline care bundles for invasive devices and apply basics of good nursing practices.
- Assess the evidence-based measures with regards to the prevention of surgical site infections.
- Have an understanding of surveillance of health care associated infections and outbreak investigation.

### Learning objectives 'Microbiological surveillance' track

- Perform quality assured clinical bacteriology, from indications to reporting.
- Collect, interpret and report antibiotic resistance data for individual patients.
- Aggregate laboratory-based data into a meaningful surveillance report.
- Sample, work-up and report selected specimens as a support for infection control.

## **2.3 Admission requirements**

The course aims at health care workers (medical doctors, nursing staff, clinical officers, pharmacists, biomedical scientists and laboratory staff) working in hospital facilities in LRS and involved in Antibiotic Stewardship, Infection Prevention & Control and/or Microbiological Surveillance activities.

- Participants should be holders of a (para)medical university degree of minimum 240 ECTS credits or equivalent and have two years of relevant professional experience. Exceptions to the degree requirement are possible based on level and relevance of professional experience.

- Proficiency in the course language is required. Non-native speakers of the course language must prove their language proficiency with a certificate from a recognized institution. Candidates who previously obtained a higher education degree (min. 60 ECTS credits) in English or have obtained a higher education degree from a registered Flemish higher education institution are not required to provide a proof of English language proficiency.
- Required level for English: TOEFL paper-based score of 580, computer-based score of 230, Internet-based score of 88 or IELTS score of 6.5. (TOEFL code for ITM is 7727). TOEFL Link <https://www.ets.org/toefl/ibt/about>

As part of the application candidates are asked to submit a short document that describes the personal project topic they want to work on (1,000 words maximum). During the course, each participant will be coached by an expert and the topic of the project may be adapted according to his/her advice. The application document needs to include:

- A short description of the main problems and challenges related to containment of ABR in their structure;
- An action plan with a limited set of activities to contain ABR. The activities should be feasible, affordable, measurable and possibly implemented within a reasonable timeframe in their structure.
- The expected results.

## **2.4 Selection criteria**

Candidates will be scored based on the following criteria:

- Professional experience (Involvement in ABS, IPC or MS)
- Motivation letter
- Personal project proposal
- Working in a hospital
- Working in a low-resource setting
- Reference letter

## **3. Student assessment**

Summative assessment of the participants is based on a multiple-choice test at the end of the course (50%), the personal project (40%) and the group work (10%).

After successful completion of the course students receive an ITM Credit Certificate.

To obtain the credit certificate, students need to obtain at least 50% in total and 50% for every part. In case of an insufficient mark (<50%) for one of the three parts, but a total mark of at least 50%, students will be deliberated if the missing points do not exceed 2.5% of the total number of points to be obtained for this part.

In case of a re-sit, the student will do an exam covering the failed component(s). The re-sit will be organised shortly after the course.

## 4. Course evaluation

Formal and informal **feedback** from participants on the course has been very useful for the internal quality assurance of this programme, and often led to new ideas and improvements to the programme.

Participants are most welcome to share ideas and thoughts **individually, or as a group, during informal encounters** with the course coordination team. Close monitoring of participants' perceptions of the course programme and organisation often helps to find solutions on the very short term. Moreover, as you will quickly notice, teaching staff are also very accessible and open for discussion.

Besides these informal moments of feedback, a **formal oral evaluation** is organized at the end of the course. The participation to this formal evaluation is mandatory.

The results of this evaluation are discussed with individual lecturers, and major problems or cross-cutting issues are dealt with in the steering group of this course.

**Contacts with former participants** are also a way to receive continuous feedback on the relevance of the programme. This can either be through informal e-mails or through a formal **alumni survey**. We may at times ask for your opinion on a certain change in the programme we are considering.

Through an alumni e-newsletter and the ITM magazine, we also keep our alumni informed on what's happening at ITM. You are most welcome to share your experiences or thoughts related to the course, as well as your field experience with your colleagues. The e-newsletter published quarterly is made available through the ITM website.

## 5. Course management structure

The course is organized by the Department of Clinical Sciences of the Institute under the supervision of its educational coordinator: Dr. Maria Zolfo ([mzolfo@itg.be](mailto:mzolfo@itg.be)).

The management of the course is in the hands of the course coordination team:

- Prof. dr. Jan Jacobs, course file-holder  
(e-mail: [jjacobs@itg.be](mailto:jjacobs@itg.be); tel: 03 247 66 30)
- Marjan Peeters, course coordinator  
(e-mail: [mpeeters@itg.be](mailto:mpeeters@itg.be); tel : 03 345 57 88)
- Asma Aboukasssem, course secretary  
(e-mail: [aaboukasssem@itg.be](mailto:aaboukasssem@itg.be) – 03 247 63 00 )

The course is further based on co-operation with the University Hospital of Antwerp (UZA) and the Sint-Jan Hospital in Brussels (Kliniek Sint-Jan):

- **Prof. Dr. Erika Vlieghe**, Head of Department Internal Medicine, Infectious Diseases and Tropical Medicine, University Hospital of Antwerp.  
Erika is the lead teacher of the **ABS track**.



- **An Caluwaerts**, Infection Prevention and Control specialist, Sint-Jean Hospital, Brussels.  
An is the lead teacher of the **IPC track**.

**Prof. Dr. Jan Jacobs** (ITM) is the leading teacher of the **MS track**.  
Each year, additional external experts are invited to the course.

Marjan Peeters, the **course coordinator** remains at your disposal for any support on academic and programmatic aspects (course content). She ensures the information flow between lecturers and participants and liaises with the **course file holder**, Jan Jacobs, and the educational coordinators (Maria Zolfo, Department of Clinical Sciences and Govert Van Heusden, ITM Academic Coordinator) regarding the internal quality assurance of the course. Asma Aboukassem takes care of all **administrative issues**, such as certificates, attestations, student cards, electronic badge, logistics for lectures and group work. For advice on cultural and social events in town or on addresses for medical help or other matters you can contact the Student Service: [studdienst@itg.be](mailto:studdienst@itg.be).

The **academic coordinator**, Govert Van Heusden, is also the ‘ombudsman’ for participants of all courses, dealing with major complaints. You can contact him by e-mail: [gvheusden@itg.be](mailto:gvheusden@itg.be) or tel: 03 247 62 33.

## 6. Practicalities

### ITM-identification card & electronic badge

Each student receives an electronic badge to allow access to ITM’s buildings, departments and bicycle parking. If you lose the electronic badge, you should immediately inform the course secretariat. A new electronic badge costs 20 euros. The electronic badge should be returned at the end of the course; if not, there is 20 euros fine.

The student card is your ITM-identification card, and gives you discounts in our Karibu Cafeteria and for cultural events throughout Belgium.

- *You always need to have both badges with you when at the Institute!*

### ITM access

Class rooms, laboratory practice rooms and group work rooms are spread over two buildings: Campus Nationalestraat and Campus Rochus.

The Institute is open from 8:00 till 19:00 hrs.

If you wish to study late at the Institute during the week, you can book a room\* in the main building Nationalestraat until 21:00 hrs.

During weekends, you can book a room in the main building Nationalestraat from 9:00 till 17:00 hrs.

You can’t stay at Campus Rochus after 19:00 hrs and you don’t have access to Campus Rochus during weekends.

There are three bicycle parkings: on the corner of Nationalestraat/Kronenburgstraat, in the corner of the Campus Rochus garden and across Campus Rochus at n° 40. Access is only

possible with an electronic badge, but bikes should still be locked individually. Bicycles have to be parked appropriately and allow free passage.

- *\*Only Room C and Computer Room will be made available and should be booked at the reception Nationalestraat. Rooms can only be used for studying, with respect for other students.*

### **Course venues**

Leave classrooms clean and tidy. Don't leave anything on the tables, don't leave personal belongings. Use the big bins in the corridors. When smoking in the garden, don't leave cigarette butts on the terrace, on the grass or in the arbors: there are ashtrays at the different entrances to the building. Food nor beverages are allowed in the classrooms. Tables, chairs, flipcharts, black boards etc. can't be moved from the class rooms. Garden furniture should be put back on the terrace, after use on the grass.

- *In case of fire alarm, you leave the institute immediately through the nearest exit and from a group across the street. Leave the class room by the shortest way. Don't linger but don't run, don't take the elevator. Under no circumstances you should go back if you think you have forgotten something. Once outside and across the street, a staff responsible will check on you and give further instructions.*

See annex 1 for safety instructions in the laboratory.

### **Attendance**

**Lecturers have a lot to share: please come to class in time!**

Attendance is expected at all obligatory course sessions. Attendance to the courses is an essential part of the learning process.

Turn off your mobile phones during courses.

### **Distribution of course notes, timetables & other information**

All documents are placed on Moodle, our open-source platform. Students are expected to **consult Moodle daily**, given the regular updates.

If documents must be read before a lecture, you are notified by e-mail.

Students keep access to Moodle until three years after the course. However, we advise you to download everything during the course: internet will not always be accessible when working abroad in the future.



# **ANNEX 1**

## **Timetable AIM 2019-20**

Monday	Tuesday	Wednesday	Thursday	Friday
9:00-10:00 ALL Agora Introduction course, presentation team, walk through the program <i>all teachers</i>	9:00 - 9:30 ALL Agora Key Antibiotics Class I <i>Erika Vlieghe</i>	9:00 - 9.30 ALL Agora Key Antibiotics Class II <i>Erika Vlieghe</i>	9:00 - 11:00 ALL Agora (2/2) Key Pathogens and transmission <i>Jan Jacobs</i>	9:00 - 9:30 ALL Agora Key Antibiotics Class III <i>Erika Vlieghe</i>
10:00 - 10:30 ALL Agora Introduction Student Service <i>Sophie V.</i>	9:30 - 11:00 ALL Agora (1/2) Key Pathogens <i>Jan Jacobs</i> introduction Lab week	9:30 - 11:00 ALL Agora Hand Hygiene <i>An Caluwaerts</i>		9:20 - 11:00 ALL Agora Interventions to contain ABR <i>Erika Vlieghe</i>
10:30 - 10:45 BREAK	11:00 - 11:15 BREAK	11:00 - 11:15 BREAK	11:00 - 11:15 BREAK	11:00 - 11:15 BREAK
10:45 - 12:00 ALL Computer Room Introduction Moodle + IT <i>Niels F.</i>	11:15 - 13:00 ALL Agora (1/2) Key aspects IPC <i>An Caluwaerts</i>	11:15 - 13:00 ABS Rochus North Antibiotics: over-underaccess <i>Raffaella R.</i>	11:15 - 13:00 ALL Agora Antiseptics/Disinfectants <i>Jan Jacobs</i>	11:15 - 13:00 ABS Rochus North Patient/Prescriber perspective
12:00 - 13:00 ALL Computer Room Pre-test MCQ <i>Marjan Peeters</i>		11:15 - 13:00 IPC/MS Agora Essential requirements <i>Joos V D N</i>		11:15 - 13:00 MS Agora How tu use EUCAST/CLSI <i>Sien O.</i>
				11:15 - 13:00 IPC Rochus S. Transmission based precautions (2/3) <i>An C. / Jan Kennis</i>
13:00 - 14:00 LUNCH	13:00 - 14:00 LUNCH	13:00 - 14:00 LUNCH	13:00 - 14:00 LUNCH	13:00 - 14:00 LUNCH
14:00 - 15:45 ALL Agora Introduction Antibiotic Resistance <i>Erika Vlieghe</i>	14:00 - 15:45 ABS Rochus North (1/2) (Ir)rational use AB <i>Erika V.</i>	14:00 - 15:45 ABS Rochus N. (1/4) Gathering and understanding AB use data (DDD) <i>Thong Phe, Erika V.</i>	14:00 - 15:45 ABS Rochus N (3/4) Gathering and understanding AB use data (PPS) <i>Thong Phe, Erika V.</i>	14:00 - 15:30 MS LabO/Agora Visit lab prep/media prep demo and autoclave <i>Birgit DS., Marjan P., Sien O., Jan J.</i>
	14:00 - 15:45 MS LabO (1/6) Lab: working-up cultures <i>Marjan P., Sien O.</i>	14:00 - 15:45 MS LabO (3/6) Lab: Working-up cultures <i>Marjan P., Sien O.</i>	14:00 - 15:45 MS LabO (5/6) Lab: Working-up cultures <i>Marjan P., Sien O.</i>	14:00 - 15:30 IPC Rochus South Transmission based precautions (3/3) <i>An C. / Jan Kennis</i>
	14:00 - 15:45 IPC Rochus South Introduction IPC + Presentation Hospital IPC participants <i>An Caluwaerts</i>	14:00 - 15:45 IPC Agora Hand hygiene monitoring (1h) cleaning/disinfection (45 min) <i>An Caluwaerts</i>	14:00 - 15:45 IPC Agora Cleaning / disinfection exercise <i>An C.</i>	14:00 - 15:30 ABS Rochus North Case study ABS intervention <i>Erika Vlieghe</i>
15:45 - 16:00 BREAK	15:45 - 16:00 BREAK	15:45 - 16:00 BREAK	15:45 - 16:00 BREAK	15:30 - 15:45 BREAK
16:00 - 17:00 ALL Agora (1/3) Personal Project Introduction meeting with coaches <i>All teachers</i>	16:00 - 17:00 ABS Rochus N (2/2) (Ir)rational use AB <i>Erika V.</i>	16:00 - 17:00 ABS Rochus N (2/4) Gathering and understanding AB use data (DDD) <i>Thong Phe, Erika V.</i>	16:00 - 17:00 ABS Rochus N (4/4) Gathering and understanding AB use data (PPS) <i>Thong Phe, Erika V.</i>	15:45 - 17:00 ALL Agora Visit to the lab <i>All teachers</i>
	16:00 - 17:00 MS LabO (2/6) Lab:working-up cultures <i>Marjan P., Sien O.</i>	16:00 - 17:00 MS LabO (4/6) Lab: working-up cultures <i>Marjan P., Sien O.</i>	16:00 - 17:00 MS LabO (6/6) Lab: working-up cultures <i>Marjan P., Sien O.</i>	
	16:00 - 17:00 IPC Rochus S Presentation Hospital IPC participants <i>An Caluwaerts</i>	16:00 - 17:00 IPC Rochus S. coaching	16:00 - 17:00 IPC Rochus S. Transmission based precautions (1/3)	

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Monday	Tuesday	Wednesday	Thursday	Friday
9:00-9:30 ALL Agora Key Antibiotics: Class IV <i>Erika Vlieghe</i>	9:00 - 9:30 ALL Agora Key Antibiotics: Class V <i>Erika Vlieghe</i>	9:00 - 10:00 ALL Agora Introduction to GLASS and National Plan for containment of AMR <i>Wim Van Damme</i>	SELF STUDY	9:00 - 11:00 ALL Agora Surveillance of HAI
9:30 - 11:00 ALL Agora Principles of Antibiotic Stewardship <i>Erika Vlieghe</i>	9:30 - 11:00 ALL Agora Blood cultures and other relevant cultures <i>Jan Jacobs</i>	10:00 -11:00 ALL Agora		11:00 - 11:15 ALL Agora Surveillance of HAI
11:00 - 11:15 BREAK	11:00 - 11:15 BREAK	11:00 - 11:15 BREAK	11:00 - 11:15 BREAK	11:00 - 11:15 BREAK
11:15 - 13:00 ALL Agora Key aspects IPC (2/2) <i>An C.</i>	11:15 - 13:00 ALL Agora Hospital Committee: interactive session on roles and responsibilities Hospital committee concepts <i>An C./Erika V.</i>	11:15 - 11:45 ALL Agora Turn lab data into report <i>Jan Jacobs</i>	11:15 - 13:00 ALL Agora Transmission based precautions <i>An C. / Jan Kennis</i>	11:15 - 13:00 ABS Rochus North (2/2) Translation ABR data into guideline <i>Erika V.</i>
		11:45 - 13:00 ALL Agora National surveillance and GLASS: experience from the field: Mozambique and Cambodia <i>Virginia L. Evaristo &amp; Barbara Barbé/dr. Thong</i>		11:15 - 13:00 MS Agora Surveillance report: exerc. <i>Marjan, A-S.</i>
				11:15 - 13:00 IPC Rochus South Monitoring IPC: my hospital <i>An C.</i>
13:00 - 14:00 LUNCH	13:00 - 14:00 LUNCH	13:00 - 14:15 LUNCH	13:00 - 14:00 LUNCH	13:00 - 14:00 LUNCH
14:00 - 15:45 ALL Agora Carrousel: 1. Blood sampling <i>Marjan Peeters</i> 2. Hand Hygiene <i>Marina Cloetens</i> 3. Preparation hand alcohol/ chlorine <i>Lompo Palpouguini</i>	14:00 - 15:45 ALL Agora Communication individual lab results <i>Anne-Sophie H., Jan Jacobs</i>	14:15 - 15:45 ALL Agora The One Health perspective on AMR <i>Jeroen Dewulf</i>	14:0 -15:45 MS/ABS Rochus N. (1/2) Translation ABR data into Guideline <i>Erika Vlieghe</i>	14:00 - 15:45 IPC/ABS Rochus N. (1/2) Surgical site infections <i>Séverine C., Erika V., An C.</i>
			14:00-15:45 IPC Agora Invasive devices and bundles <i>Frank Van Laer</i>	14:00-15:45 MS Agora Surveillance report: exerc. <i>Marjan P., Anne-Sophie H.</i>
15:45 - 16:00 BREAK	15:45 - 16:00 BREAK	15:45 - 16:00 BREAK	15:45 - 16:00 BREAK	15:45 - 16:00 BREAK
16:00 -17:00 ALL Agora additional time Carrousel	16:00 - 17:00 ALL Agora (2/3) Personal project meeting with coaches <i>All teachers</i>	16:00-17:00 IPC & MS LabO Environmental sampling practice <i>Jan J. Anne-Sophie H.</i>	16:00-17:00 IPC & MS LabO Environmental sampling <i>Jan J. Anne-Sophie H.</i>	16:00 - 17:00 IPC/ABS Rochus N. (2/2) Surgical site infections <i>Séverine C., Erika V., An C.</i>
		16:00-17:00 ABS Rochus N. (1/2) Clinical cases <i>Erika V.</i>	16:00-17:00 ABS Rochus N. (2/2) Clinical cases (AB-grams) <i>Erika V.</i>	16:00-17:00 MS Agora Surveillance report: exerc. <i>Marjan, A-S.</i>

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Monday	Tuesday	Wednesday	Thursday	Friday
9:00-9:30 ALL Agora Introduction group work	9:00 - 11:00 ALL Computer room	9:00 -11:00 ALL Computer room Group work hospital committee: Report  <i>All teachers</i>	9:00 - 11:00 ALL Computer room Presentation personal project  <i>All teachers</i>	9:00 - 10:00 ALL Computer room End evaluation participants (multiple choice) <i>Marjan Peeters</i>
9:30-11:00 ALL Agora Group work hospital committee: Interpretation surveillance data <i>All teachers</i>	SELF STUDY			10:00 - 11:00 ALL Computer room Evaluation course (individual) <i>Marjan Peeters</i>
11:00 - 11:15 BREAK	11:00 - 11:15 BREAK	11:00 - 11:15 BREAK	11:00 - 11:15 BREAK	11:00 - 11:15 BREAK
11:15-13:00 ALL Agora Group work hospital committee: Interpretation surveillance data <i>All teachers</i>	11:15 - 13:00 ALL Computer room	11:15-13:00 ALL Computer room Group work hospital committee: Report <i>All teachers</i>	11:15-13:00 ALL computer room Presentation personal project  <i>All teachers</i>	
	SELF STUDY			DELIBERATION
13:00 - 14:00 LUNCH	13:00 - 14:00 LUNCH	13:00 - 14:00 LUNCH + Hand hygiene contest <i>An C.</i>	13:00 - 14:00 LUNCH BURKINA SEMINAR	13:00 - 13:15 GROUP PICTURE
14:00-15:45 ALL Agora Group work hospital committee: Finding useful information and action plan <i>All teachers</i>	14:00-15:45 ALL Agora Outbreak investigation and response <i>Jan Jacobs</i>	14:00-15:45 ALL Agora	14:00-15:45 ALL Agora Q&A  <i>All teachers</i>	14:00 - 15:00 ALL Agora Group discussion
		SELF STUDY		15:00 - 16:00 ALL Karibu Mbili Closing session  <i>Lut Lynen</i>
15:45 - 16:00 BREAK	15:45 - 16:00 BREAK	15:45 - 16:00 BREAK	15:45 - 16:00 BREAK	
16:00- 17:00 ALL Agora Group work hospital committee: Finding useful information and action plan <i>All teachers</i>	16:00 - 17:00 ALL Agora (3/3) Personal Project: meeting with coaches, individual work <i>All teachers</i>			
		SELF STUDY	SELF STUDY	
	dinner TARBOUCH 18 U			



## **ANNEX 2**

# **SAFETY regulations for the laboratory classes**

## SAFETY regulations for the laboratory classes

Working in a laboratory involves risks. The biological materials used during the practical session are inactivated (by formalization, staining, etc). Nevertheless, always treat them as potentially infectious.

The rooms used for the laboratory classes: Room O (155/00/14) and Room Agora (155/00/35) are Biosafety Level 2 (BSL-2) facilities, as are most diagnostic and health-care laboratories.

Following are the most essential rules and practices that are basic to good (i.e. safe) laboratory practice. They are the concise and minimum requirements we expect each student to know and to follow during the laboratory classes. For more detailed information on laboratory biosafety we refer to the WHO "Laboratory biosafety manual". (World Health Organization, Geneva, 2004)

### **Basic safety rules and precautions:**

#### **Access**

- Keep doors and windows closed as much as possible.
- Access to the laboratory is only admitted during the official lab hours and under supervision of the teacher.

#### **Personal protection**

- Wear a (closed) lab coat inside the laboratory. Do not wear the lab coat outside the laboratory.
- Do not eat, drink, smoke or store food/beverages in the lab.
- Keep street clothing, personal bags, and all unnecessary objects outside the laboratory.
- Avoid using mobile phones or laptops inside the laboratory.
- Carefully wash your hands before leaving the laboratory.
- In case of contact with infectious materials, rub your hands with alcohol gel or alternatively wash your hands using soap and water.
- Use gloves for procedures that may involve contact with blood or body fluids or involving sharps and infectious materials. After use, dispose of the gloves in the yellow biohazard containers and wash your hands using water and soap or alternatively rub your hands using alcohol gel.

#### **Procedures**

- Pipetting by mouth is forbidden: always use a mechanical pipettor.
- Turn off all electronic equipment after use.
- Report spills, accidents or potential exposure to infectious material to the supervisor/teacher.
- Clean the laboratory work surface using 70% alcohol, leave to act for at least 10 minutes.
- Before the use of chemical reagents read the labels on the reagent bottles labels and make sure you understand their meaning.
- Material safety data (and R and S sentences) for the chemical agents are available in the laboratory, take prior knowledge before using a product and treat according to the safety prescriptions.

#### **Waste handling**

- Collect contaminated (infectious) waste in the yellow biohazard containers.
- After use, throw needles or lancets immediately in the sharps container. Never recap needles or place them on the bench.
- Dispose of non-contaminated waste in the "household" containers.